

You pull an object of mass  $M$  by a rope that makes an angle  $\theta$  with respect to the floor over which you drag the object. There is friction between the object and the ground, and the force you exert causes the object to move with constant speed. Compare the work done by you, friction, and gravity as you are dragging the block.

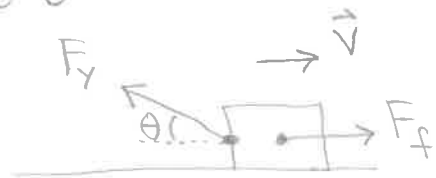
(a)  $W_y = W_f < W_g$

(b)  $W_y = W_f > W_g = 0$

(c)  $W_y = -W_f < W_g = 0$

(d)  $W_y = -W_f > W_g = 0$

(e)  $|W_y| > |W_f|$  and  $W_g = 0$



A block with initial speed  $v_0$  slides across a horizontal surface with friction. If the block comes to rest after a distance  $d$ , what is the coefficient of kinetic friction?

(a)  $\frac{v_0}{gd}$

(c)  $\frac{v_0^2}{2gd}$

(e) Need more information

(b)  $\frac{v_0^2}{gd}$

(d)  $\frac{2v_0^2}{gd}$